

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A cryptographic method implemented by a smart card (30) of a set of smart cards each belonging to a first entity that may be different for each smart card, each smart card comprising ~~being equipped with~~ a chip (31) ~~comprising~~ storage means (32) ~~in which are stored~~ for storing a secret key and an identifier of the first entity that is the proprietor of the smart card (30) and calculation means (33) ~~which execute~~ for executing a cryptographic algorithm comprising ~~whose~~ input arguments ~~include~~ comprising at least the secret key, ~~which~~ the method comprising ~~is characterized in that it comprises the following steps:~~

~~before any calculation by the calculation means (33) of the chip (31) of the smart card (30), the chip (31) reads~~ reading by the chip in from a storage means of a second entity a list of identifiers in complete form of first entities that are smart card proprietors ~~(operation 2)~~ before any calculation is made by the calculation means of the chip, said list of identifiers being linked to ~~the~~ a status assigned to each of the first entities by the second entity[[,]]; and

~~the chip (31) compares~~ comparing by the chip the ~~identifiers~~ identifier stored in the storage means (32) of the chip (31) and the contents of the list of identifiers ~~(operation 3)~~ to authorize ~~(operation 5)~~ or prohibit ~~(operation 4)~~ ~~calculation~~ calculations made by the calculation means (33) of the chip as a function of the result of the comparison;

simultaneous with reading the list of identifiers, reading by the chip signatures of each of the identifiers in the list of identifiers, a value of the number of identifiers in the list of identifiers, and a signature of the value from the storage means of the second entity, the

signatures of each of the identifiers, the value, and the signature of the value having been previously calculated by a calculating means of the second entity;

verifying by the chip the validity of each of the signatures of the identifiers and counting by the chip the number of identifiers in the list of identifiers before authorizing by the chip any calculations by the calculation means of the chip; and

verifying by the chip that the counted number of identifiers and the read value of the number of identifiers are the same before authorizing by the chip any calculations by the calculation means of the chip.

2. (Currently Amended) A cryptographic method according to claim 1, wherein the list comprises all first entities whose status has been set to "revoked" by the second entity and the chip (31) authorizes calculation (~~operation 5~~) only if the identifier stored in the storage means (32) of the chip (31) is not in the list.

3. (Currently Amended) A cryptographic method according to claim 1, wherein the list comprises all first entities whose status has been set to "non-revoked" by the second entity and wherein the chip (31) authorizes calculation (~~operation 5~~) only if the identifier stored in the storage means (32) of the chip (31) is in the list.

4. (Canceled).

5. (Canceled).

6. (Currently Amended) A smart card ~~(30)~~ for implementing a method according to claim 1, ~~wherein~~ the smart card comprising: ~~(30) is equipped with~~

a chip ~~(31) which comprises comprising~~:

storage means ~~(32)~~ for storing a secret key and an identifier of a first entity that is a proprietor of the smart card[[,]];

calculation means ~~(33) for executing adapted to execute~~ a cryptographic algorithm ~~whose comprising~~ input arguments include comprising the secret key[[,]];

reading means ~~(34)~~ for reading from storage means of a second entity via a telecommunications network, a list in complete form of identifiers of first entities that are smart card proprietors, signatures of each of the identifiers in the list of identifiers, a value of the number of identifiers listed in the list of identifiers, and a signature of the value, said list of identifiers being linked to each a status assigned to each of the first entities by the second entity, and the signatures of each of the identifiers, the value, and the signature of the value having been previously calculated by a calculating means of the second entity;

means ~~(35)~~ for comparing the identifier stored in the storage means ~~(32)~~ of the chip ~~(31)~~ and the contents of the list of identifiers to authorize or prohibit calculation by the calculation means ~~(33)~~ as a function of the result of the comparison;

means for verifying the validity of the signatures of the identifiers;

means for counting the number of identifiers in the list of identifiers;

means for verifying that the counted number of identifiers and the read value of the number of identifiers are the same; and

means for authorizing calculation by the calculation means as a function of the result of the verification that the counted number of identifiers and the read value of the number of identifiers are the same.

7. (Currently Amended) An article of manufacture for use in a computer system, ~~including~~ comprising a computer usable medium, for performing a cryptographic method implemented by a smart card (30) of a set of smart cards each belonging to a first entity that may be different for each smart card, each smart card ~~being equipped with~~ comprising a chip (31) comprising storage means storing (32) ~~in which are stored~~ a secret key and an identifier of the first entity that is the proprietor of the smart card (30) and calculation means (33) ~~which execute~~ executing a cryptographic algorithm comprising ~~whose~~ input arguments comprising ~~include~~ at least the secret key, wherein the computer usable medium comprises ~~[[a]]~~ computer readable code for executing the steps of ~~causing~~:

~~before any calculation by the calculation means (33) of the chip (31) of the smart card (30), the chip (31) to read in~~ reading from a storage means of a second entity before any calculation by the calculation means of the chip a list of identifiers in complete form of first entities that are smart card proprietors ~~(operation 2)~~, signatures of each of the identifiers in the list of identifiers, a value of the number of identifiers listed in the list of identifiers, and a signature for the value of the number, said list of identifiers being linked to ~~the~~ a status assigned to each of the first entities by the second entity and the signatures of each of the identifiers, the value, and the signature of the value having been previously calculated by a calculation means of the second entity;

verifying by the chip the validity of each of the signatures of the identifiers and counting by the chip the number of identifiers in the list of identifiers before authorizing by the chip any calculations by the calculation means of the chip;

verifying by the chip that the counted number of identifiers and the read value of the number of identifiers are the same; and

~~the chip (31) to compare~~ comparing by the chip the identifiers identifier stored in the storage means (32) of the chip (31) and the contents of the list of identifiers (~~operation 3~~) in order to authorize (~~operation 5~~) or prohibit (~~operation 4~~) ~~calculation~~ calculations made by the calculation means (33) as a function of the result of the comparison.